

SK54A SCHOTTKY RECTIFIER

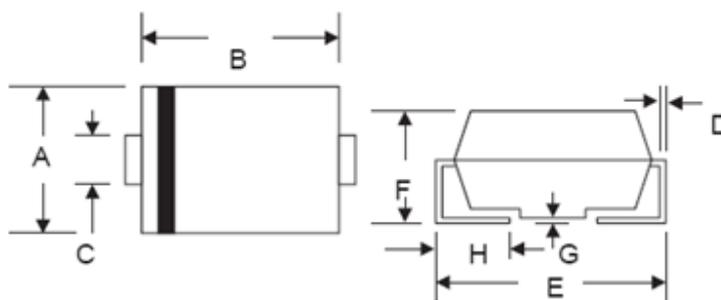
Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

Features:

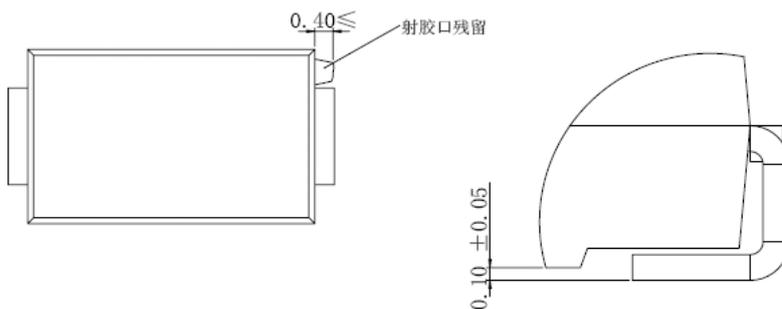
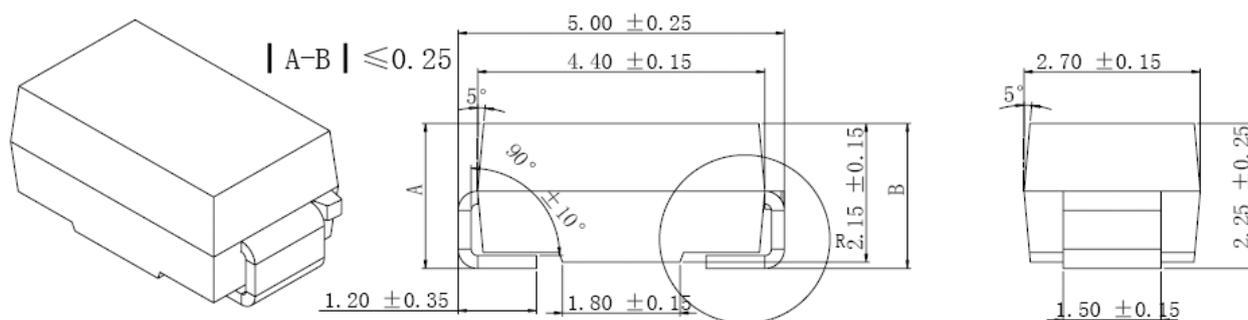
- Small foot print, surface mountable
- Very low forward Voltage Drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Green Products in Compliance the ROHS Directive
- This is a Pb - Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Dimensions (In mm / Inches)



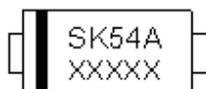
| SMA/DO-214AC | | | | |
|--------------|-------|-------|---------|-------|
| Dim | Min | Max | Min | Max |
| A | 2.50 | 2.90 | 0.098 | 0.114 |
| B | 4.00 | 4.60 | 0.157 | 0.181 |
| C | 1.40 | 1.60 | 0.055 | 0.063 |
| D | 0.152 | 0.305 | 0.006 | 0.012 |
| E | 4.80 | 5.28 | 0.189 | 0.208 |
| F | 2.00 | 2.44 | 0.079 | 0.096 |
| G | 0.051 | 0.203 | 0.002 | 0.008 |
| H | 0.76 | 1.52 | 0.030 | 0.060 |
| | In mm | | In inch | |

OPTION 1



OPTION 2(JK)

SMA

Marking Diagram:


Where XXXXX is YYWWL

| | |
|-------|--------------|
| SK54A | = Part Name |
| YY | = Year |
| WW | = Week |
| L | = Lot Number |

Cautions: Molding resin
 Epoxy resin UL:94V-0

Ordering Information:

| Device | Package | Shipping |
|--------|------------------|----------------|
| SK54A | SMA (Pb-Free) | 5000pcs / reel |

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings:

| Characteristics | Symbol | Condition | Max. | Units |
|---|-------------|---|------|-------|
| Peak Inverse Voltage | V_{RWM} | - | 40 | V |
| Average Forward Current | $I_{F(AV)}$ | 50% duty cycle @ $T_L=105^{\circ}C$ rectangular wave form(L=0.375") | 5.0 | A |
| Peak One Cycle Non-Repetitive Surge Current | I_{FSM} | 8.3 ms, half Sine pulse | 125 | A |



Electrical Characteristics:

| Characteristics | Symbol | Condition | Max. | Units |
|------------------------------|----------|---|------|-------|
| Forward Voltage Drop | V_{F1} | @ 5A, Pulse, $T_J = 25^\circ\text{C}$ | 0.65 | V |
| | V_{F1} | @ 5A, Pulse, $T_J = 125^\circ\text{C}$ | 0.63 | V |
| Reverse Current | I_{R1} | @ $V_R = \text{rated } V_R$ $T_J = 25^\circ\text{C}$ | 1.0 | mA |
| | I_{R2} | @ $V_R = \text{rated } V_R$ $T_J = 125^\circ\text{C}$ | 30.0 | mA |
| Typical Junction Capacitance | C_j | @ $V_R = 5.0\text{ V}$, $T_c = 25^\circ\text{C}$ $f_{\text{SIG}} = 1\text{MHz}$ | 150 | PF |

* Pulse Width < 300 μs , Duty Cycle < 2%

Thermal-Mechanical Specifications:

| Characteristics | Symbol | Condition | Specification | Units |
|--|-----------------------|--------------|---------------|--------------------|
| Junction Temperature | T_J | - | -55 to +150 | $^\circ\text{C}$ |
| Storage Temperature | T_{stg} | - | -55 to +150 | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Lead | $R_{\theta\text{JL}}$ | DC operation | 20 | $^\circ\text{C/W}$ |
| Maximum Thermal Resistance, Case to Heat Sink | $R_{\theta\text{JA}}$ | DC operation | 77 | $^\circ\text{C/W}$ |
| Approximate Weight | wt | - | 0.11 | g |
| Case Style | SMA | | | |

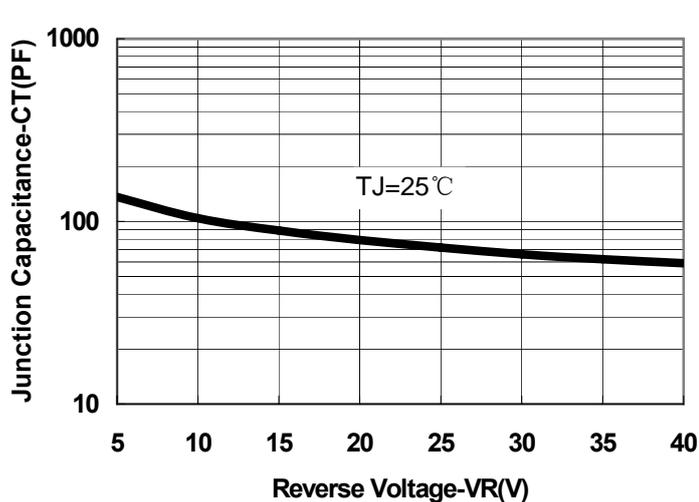


Fig.1-Typical Junction Capacitance Vs.Reverse Voltage

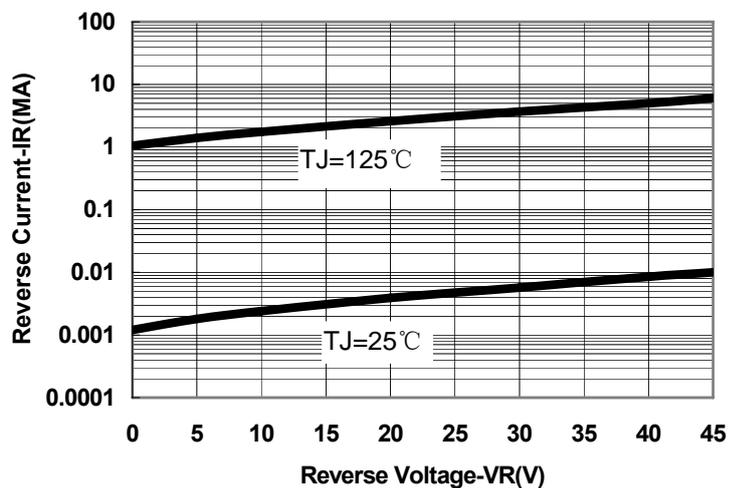


Fig.2-Typical Values Of Reverse Current VS.Reverse Voltage

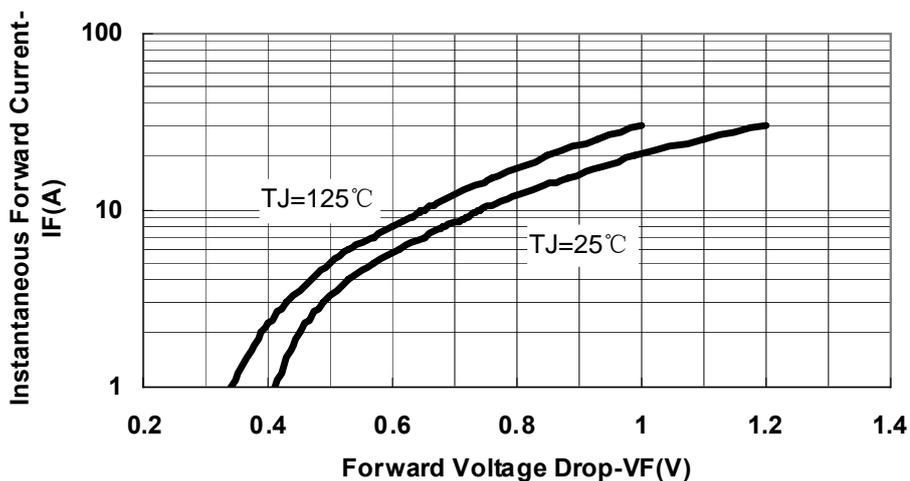


Fig.3-Typical Forward Voltage Drop Characteristics



SK54A

Technical Data
Data Sheet N1768, Rev. -

Green Products

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